



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,229	12/07/2000	Steven Soloff	PD-200154B	3475

20991 7590 03/16/2007

THE DIRECTV GROUP INC
PATENT DOCKET ADMINISTRATION RE/R11/A109
P O BOX 956
EL SEGUNDO, CA 90245-0956

EXAMINER

SHELEHEDA, JAMES R

ART UNIT	PAPER NUMBER
----------	--------------

2623

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 09/733,229	Applicant(s) SOLOFF ET AL.	
	Examiner James Sheleheda	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45-76 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 45-76 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to Allport have been considered but are moot in view of the new ground(s) of rejection.

2. Applicant's arguments with respect to a low speed serial data port "ordinarily used to debug the IRD" have been fully considered but they are not persuasive.

Applicant argues on page 11 that while existing IRDs include a second low speed serial data port, defined in applicant's specification as a RS232 data port (see page 14, lines 11-16), this serial data port is "ordinarily used to debug the IRD" and not to transmit additional information transmitted with a television signal.

In response, Wang discloses satellite IRDs which receive television signals which including additional information (see Wang at column 4, lines 41-66). Fang specifically discloses a television receiving system wherein an RS232 data port is utilized to transmit additional information received within a television signal to a peripheral display device (see Fang at column 3, lines 39-56). Thus, as the combination discloses an IRD which utilizes a RS232 data port to transmit additional information, it meets the current claim limitations, as the RS232 data port on an IRD is "ordinarily used to debug the IRD" as admitted by applicant.

Art Unit: 2623

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 45-55 and 58-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (6,675,385) (of record) in view of Fang et al. (Fang) (6,816,201) (of record).

As to claims 45, 69 and 73, Wang discloses a DSS terrestrial-satellite communications network (a satellite network which transmits digital MPEG data; column 4, lines 19-23 and column 4, lines 62-66), and corresponding method, for delivering information (EPG data; column 4, lines 31-33) to a viewing device (Fig. 1; TV receiver, 34) without the need for a user to possess additional communications hardware (wherein the user simply requires a set top and display; column 3, lines 47-55), the network comprising:

a video display device (34) for displaying broadcast television signals (column 7, lines 50-54);

an IRD configured to receive a satellite data stream including a plurality of television signals and additional information (column 5, lines 5-29 and column 7, lines 66-column 8, line 21), said IRD comprising:

means for receiving and decoding the television signals and additional information from the data stream (column 7, line 50-column 8, line 21);

a first high-speed port to provide a data link to the video display (see Fig. 1), said high speed port having sufficient bandwidth to stream the television signal over the data link for real time display on the video display device (Fig. 1; column 7, lines 50-54);

means for extracting the additional information from said data stream (separating the guide information from the MPEG stream; column 7, line 66-column 8, line 21).

While Wang discloses extracting and displaying the additional information (column 7, line 66-column 8, line 21), he fails to specifically disclose a viewing device for receiving, storing and displaying the additional information, a second low speed serial data port, ordinarily used to debug the IRD, configured to provide a data link to the interactive viewing device, said serial data port having insufficient bandwidth to stream the television signal over the data link for real time display on said viewing device, and sending the additional information through said second low speed data port to the viewing device.

In an analogous art, Fang discloses a broadcast receiving system (Fig. 2; column 2, lines 3-11) wherein video data is transmitted through a first connection to a display (Fig. 1; column 3, lines 31-38) and additional information is transmitted with the television signal (column 4, lines 39-47), extracted and transmitted through second serial data port connection (RS232 data port; Fig. 1; column 3, lines 39-56), said serial data port having insufficient bandwidth to stream the television signal over the data link for real time display on said viewing device (RS232 data port; Fig. 1; column 3, lines 39-56) to a second viewing device (column 4, lines 44-56) for receiving, storing and displaying the additional information (column 3, lines 48-56 and column 4, lines 15-55)

Art Unit: 2623

for the typical benefit of more effectively using information available with a television broadcast signal by not obscuring the video display (column 1, lines 41-67 and column 2, lines 50-56).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Wang's system to include a viewing device for receiving, storing and displaying the additional information, a second low speed serial data port, ordinarily used to debug the IRD, configured to provide a data link to the interactive viewing device, said serial data port having insufficient bandwidth to stream the television signal over the data link for real time display on said viewing device, and sending the additional information through said second low speed data port to the viewing device, as taught by Fang, for the typical benefit of more effectively using information available with a television broadcast signal by not obscuring the video display.

As to claim 46, Wang and Fang disclose wherein the extraction means extracts and sends only the additional information through the serial data port (wherein only additional, non-video information, is transmitted to the extra display; see Fang at column 4, lines 15-55).

As to claim 49, Wang and Fang disclose wherein the means for extracting the additional information pushes the additional information to said viewing device (wherein

Art Unit: 2623

the viewing device does *not* request the information be transmitted; see Fang at column 4, lines 15-55).

As to claim 50, Wang and Fang disclose wherein the viewing device is only configured to receive the additional information from the IRD through the second low speed serial data port (see Fang at Figs. 1-2; column 3, lines 39-56).

As to claim 51, Wang and Fang disclose wherein the television signals and additional information are carried on discrete broadcast channels (see Wang at column 5, lines 5-62), the additional information including HTML formatted Web data retrieved from the Internet (see Wang at column 3, line 62-column 4, line 8) and pushed into the satellite data stream on a particular channel (see Wang at column 4, lines 9-23 and column 5, lines 5-62), said IRD being tuned to the particular channel for at least a predetermined amount of time (see Wang at column 6, line 60-column 7, line 21) to push the Web data through the low speed serial data port to the viewing device where the Web data appears as a seamless Web site (see Wang at column 6, line 60-column 7, line 21 and Fang at column 4, lines 40-54).

As to claims 52 and 74, Wang and Fang disclose wherein the television signals and additional information are carried on discrete broadcast channels (see Wang at column 5, lines 5-62), the additional information including a program guide for a plurality of discrete broadcast channels (see Wang at column 3, line 62-column 4, line 8) with

Art Unit: 2623

advance television program schedules being pushed into the satellite data stream on a particular channel (see Wang at column 4, lines 9-23 and column 5, lines 5-62), said IRD being tuned to the particular channel for at least a predetermined amount of time (see Wang at column 6, line 60-column 7, line 21) to push the program through the low speed serial data port to the viewing device (see Wang at column 6, line 60-column 7, line 21 and Fang at column 4, lines 40-54).

As to claim 53, Wang and Fang disclose wherein the television signals and additional information are carried on discrete broadcast channels in the satellite data stream (see Wang at column 5, lines 5-62), the additional information including program guide information for each of a plurality of said discrete broadcast channels (see Wang at column 3, line 62-column 4, line 8 and column 6, line 60-column 7, line 49), said program guide information being tuned to a particular discrete broadcast channel so that the particular broadcast television signal is sent through the first high speed port to the video display device (see Wang at Fig. 1; column 7, lines 50-54 and Fang at Fig. 1; column 3, lines 31-38) and said means extracts the program guide information from the particular channel (see Wang at column 7, line 50-column 8, line 20 and Fang at column 4, lines 5-32) and pushes it through the second low speed serial data port to the viewing device (see Fang at column 4, lines 15-54) so that the program guide information pushed to the viewing device changes as the user changes channels (channel specific guide pages; see Wang at column 7, line 50-column 8, line 20).

Art Unit: 2623

As to claim 54, Wang and Fang disclose wherein the program guide information for particular discrete broadcast channel only includes schedule information for that channel (channel specific guide pages; see Wang at column 7, line 50-column 8, line 20).

As to claim 55, Wang and Fang disclose wherein the viewing device does not include a control port for sending commands to change channels (the control port for commands is optional; see Fang at column 4, lines 55-61).

As to claim 58, Wang and Fang disclose wherein the viewing device does not send commands to said IRD or said video display to change channels (the control port for commands is optional; see Fang at column 4, lines 55-61).

As to claim 59, Wang and Fang disclose wherein the viewing device does not have access to an Internet Service Provider other than Web data downloaded in the additional information (wherein the guide and all other web pages are selected and transmitted with the television; see Wang at column 3, line 62-column 4, line 8).

As to claim 60, Wang and Fang disclose wherein the web data includes a web page and a plurality of hyperlinks to give the user the impression of being connected to an interactive ISP (see Wang at column 3, line 62-column 4, line 8 and column 9, line 4-64).

As to claims 61, 70 and 71, Wang and Fang disclose wherein the television signals are carried on discrete broadcast channels in the satellite data stream (see Wang at column 5, lines 5-62), the additional information is coupled to particular discrete broadcast channels based upon the subject matter of the additional information being similar to the subject matter of the broadcast television signal in that particular discrete broadcast channels (EPG content related to the particular broadcast channel content; see Wang at column 5, line 46-column 6, line 35 and column 8, lines 1-24).

As to claim 62, Wang and Fang disclose wherein the additional information includes Web data (see Wang at column 3, line 62-column 4, line 8).

As to claim 63, Wang and Fang disclose wherein the television signals and additional information are carried on discrete broadcast channels in the satellite data stream (see Wang at column 5, lines 5-62), the additional information including web data that is coupled to a particular discrete broadcast channel (see Wang at column 3, line 62-column 4, line 8, column 5, lines 5-62 and column 8, line 1-24), said IRD being periodically tuned to that particular discrete broadcast channel for said means to extract the web data (see Wang at column 6, line 60-column 7, line 21), and transmit it over the serial data port to the viewing device (see Wang at column 6, line 60-column 7, line 21 and Fang at column 4, lines 40-54), wherein said television broadcast signal in said

Art Unit: 2623

particular discrete broadcast channel is not transmitted over the first high speed port to the video display device (see Fang at column 3, lines 35-56 and column 4, lines 15-54).

As to claim 64, Wang and Fang disclose

means for selecting, acquiring (EPG Manager, 14; column 3, lines 56-67) and editing (formatting by MPEG streamer, 18; column 4, lines 9-13) the additional information (EPG information for programming content; Fig. 4; column 6, lines 5-16);

a first network computer (Fig. 1; a computer storing the EPG webpages on the Internet, 11) having memory storage means for storing said additional information (wherein the webpages must be stored on the computer to be accessed; column 3, lines 37-41);

a central network computer (Fig. 1; a computer in headend, 16; column 3, lines 42-46) having storage means for storing television broadcast signals in discrete broadcast channels (column 4, lines 9-40);

means for transmitting the content specific information from said first network computer to said central network computer (column 3, lines 56-61);

means in said central computer for coupling the additional information to one or more discrete broadcast channels (column 4, lines 9-23);

one or more communication satellites for receiving and transmitting the satellite data stream (direct broadcast satellite; column 4, lines 62-66);

uplink means coupling said discrete broadcast channels to said satellites in the form of said data stream (wherein an uplink means is inherently present for signals from

Art Unit: 2623

the headend (16) to reach the satellite; Fig. 4; column 4, line 62-66 and column 5, lines 5-30); and

downlink means (wherein a downlink means is inherently present for signals from the satellite to reach the set top (24); Fig. 4; column 4, line 62-66 and column 5, lines 5-29) coupling said data stream from said satellites to a receiving antenna (wherein an antenna is inherently present for the set top to receive transmitted satellite signals) situated within said satellite's coverage area (the antenna must be situated in the coverage area for the signal to be received), said receiving antenna being connected to said IRD (the set top must be connected to the antenna to receive the satellite signals).

As to claim 65, Wang discloses a DSS terrestrial-satellite communications network (a satellite network which transmits digital MPEG data; column 4, lines 19-23 and column 4, lines 62-66) for delivering information (EPG data; column 4, lines 31-33) to a viewing device (Fig. 1; TV receiver, 34) without the need for a user to possess additional communications hardware (wherein the user simply requires a set top and display; column 3, lines 47-55), the network comprising:

a video display device (34) for displaying broadcast television signals (column 7, lines 50-54);

an IRD configured to receive a satellite data stream including a plurality of discrete television broadcast channels that carry broadcast television signals and additional information (column 5, lines 5-29 and column 7, lines 66-column 8, line 21), said IRD comprising:

a receiver/decoder for receiving and decoding the television signals and additional information (column 7, line 50-column 8, line 21);

a first high-speed port to provide a data link to the video display device (see Fig. 1), said high speed port having sufficient bandwidth to stream the broadcast television signal for real time display on the video display device (Fig. 1; column 7, lines 50-54);

means installed on the existing IRD for extracting the additional information from said discrete broadcast channel (separating the guide information from the MPEG stream; column 7, line 66-column 8, line 21).

While Wang discloses extracting and displaying the additional information (column 7, line 66-column 8, line 21), he fails to specifically disclose a viewing device including a first low speed serial data port, a memory, and a software application that only retrieves data from the serial data port and saves the retrieved additional information in said memory, a second low speed serial data port, ordinarily used to debug the IRD, configured to provide a data link to the viewing device, said data link having insufficient bandwidth to stream the television signal over the data link for real time display on said viewing device, and pushing only the additional information through said second low speed data port to the viewing device.

In an analogous art, Fang discloses a broadcast receiving system (Fig. 2; column 2, lines 3-11) wherein video data is transmitted through a first connection to a display (Fig. 1; column 3, lines 31-38) and additional information is transmitted with the television signal (column 4, lines 39-47), extracted and transmitted through second serial data port connection (RS232 data port; Fig. 1; column 3, lines 39-56), said serial

Art Unit: 2623

data port having insufficient bandwidth to stream the television signal over the data link for real time display on said viewing device (RS232 data port; Fig. 1; column 3, lines 39-56) to a second viewing device (column 4, lines 44-56) for receiving, storing and displaying the additional information (column 3, lines 48-56 and column 4, lines 15-55) for the typical benefit of more effectively using information available with a television broadcast signal by not obscuring the video display (column 1, lines 41-67 and column 2, lines 50-56).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Wang's system to include a viewing device including a first low speed serial data port, a memory, and a software application that only retrieves data from the serial data port and saves the retrieved additional information in said memory, a second low speed serial data port, ordinarily used to debug the IRD, configured to provide a data link to the viewing device, said data link having insufficient bandwidth to stream the television signal over the data link for real time display on said viewing device, and pushing only the additional information through said second low speed data port to the viewing device, as taught by Fang, for the typical benefit of more effectively using information available with a television broadcast signal by not obscuring the video display.

As to claim 66, Wang and Fang disclose wherein the viewing device does not send commands to said IRD or said video display to change channels (the control port for commands is optional; see Fang at column 4, lines 55-61).

As to claim 67, Wang and Fang disclose wherein the additional information is coupled to particular discrete broadcast channels based upon the subject matter of the additional information being similar to the subject matter of the broadcast television signal in that particular discrete broadcast channels (EPG content related to the particular broadcast channel content; see Wang at column 5, line 46-column 6, line 35 and column 8, lines 1-24).

As to claim 68, Wang and Fang disclose wherein the additional information includes Web data (see Wang at column 3, line 62-column 4, line 8).

As to claim 76, Wang and Fang disclose wherein the viewing device does not send channel changing commands to the IRD or the video display to change channels (the control port for commands is optional; see Fang at column 4, lines 55-61).

As to claim 72, Wang and Fang disclose wherein the extraction means pushes the additional information out said second low speed serial data port (wherein the viewing device does *not* request the information be transmitted; see Fang at column 4, lines 15-55).

As to claim 75, Wang and Fang disclose wherein the software application on the viewing device only retrieves data from its serial data port (see Fang at Figs. 1-2; column 3, lines 39-56).

As to claim 47 and 48, while Wang and Fang disclose a second low speed serial data port, they fail to specifically disclose wherein the bandwidth of the second low speed serial data port is approximately 4600 bits per second.

The examiner takes Official Notice that it was notoriously well known in the art at the time of invention by applicant to operate a serial port, such as the RS232 serial port disclosed by Fang (column 3, lines 48-56), at 4600 bits per second, as this was a typical operating bandwidth supported by and utilized in data ports which conformed to the RS232 standard.

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Wang and Fang's system to include wherein the bandwidth of the second low speed serial data port is approximately 4600 bits per second for the typical benefit of incorporating a data port which was widely utilized for conforming with the RS232 standard.

5. Claims 56 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang and Fang as applied to claim 48 above, and further in view of Machida et al. (Machida) (US 2003/0158932).

As to claim 56, while Wang and Fang disclose wherein the viewing device monitors the serial data port and wherein additional information is transmitted from the IRD to the viewing device (see Fang at column 4, lines 15-54), they fail to specifically disclose displaying an icon informing a user.

In an analogous art, Machida discloses a communications system for connecting peripheral devices (Fig. 1) wherein an icon is displayed to a user informing the user of the status of a peripheral device (see Figs. 3 and 8, paragraph 77 and claim 13), including notification of when the device is in use (see paragraph 73) for the typical benefit of providing a more efficient system where a user can easily identify the status of a peripheral device (see paragraph 7).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Wang and Fang's system to include displaying an icon informing a user, as taught by Machida, for the typical benefit of providing a more efficient system where a user can easily identify the status of a peripheral device.

As to claim 57, Wang, Fang and Machida disclose wherein the viewing device displays a different icon informing the user when the additional information has been received (informing the user that the device is no longer busy; see Machida at Figs. 3 and 8, paragraph 77 and claim 13).

Conclusion

Art Unit: 2623

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

on _____.
(Date)

Typed or printed name of person signing this certificate:

Signature: _____

Registration Number: _____

Certificate of Transmission

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. () _____ - _____ on _____.
(Date)

Typed or printed name of person signing this certificate:

Signature: _____

Registration Number: _____

Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (571) 272-7357. The examiner can normally be reached on 9:00-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2623

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James Sheleheda
Patent Examiner
Art Unit 2623

JS


SCOTT E. BELIVEAU
PRIMARY PATENT EXAMINER